

I will be able to discover and explain the sum of the measures of a triangle, develop inductive and deductive reasoning, and practice using geometry tools.

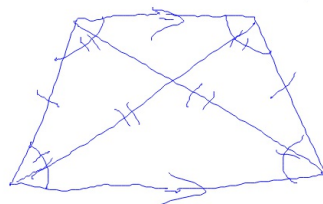
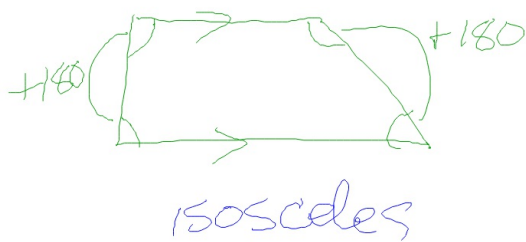
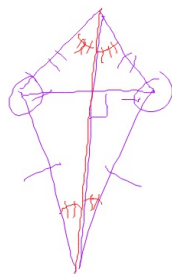
IWBAT discover the sum of the angle measures in a polygon, practice construction skills, and develop reasoning and problem-solving skills.

$$(n-2)180$$

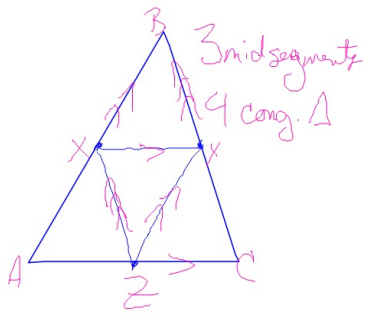
IWBAT discover the sum of the measures of the exterior angles of a polygon.

360°

IWBAT discover properties of kites and trapezoids.



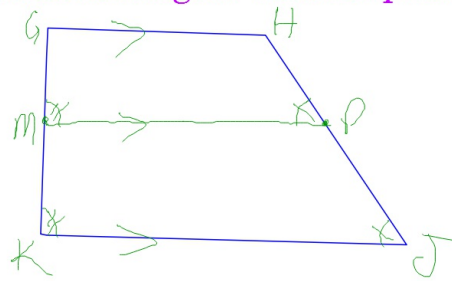
IWBAT define and discover properties of midsegments in triangles and trapezoids.



$$XY = \frac{1}{2}AC$$

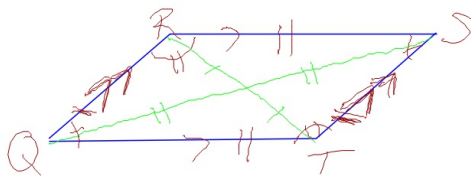
$$XZ = \frac{1}{2}BC$$

$$YZ = \frac{1}{2}AB$$



$$MP = \frac{1}{2}(GH + JK)$$

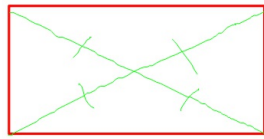
IWBAT discover properties of parallelograms.



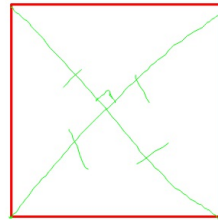
$$m\angle Q + m\angle R = 180^\circ$$

S                  T

IWBAT discover properties of rhombuses, rectangles, and squares.

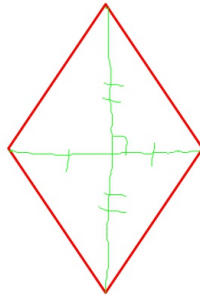


Rect

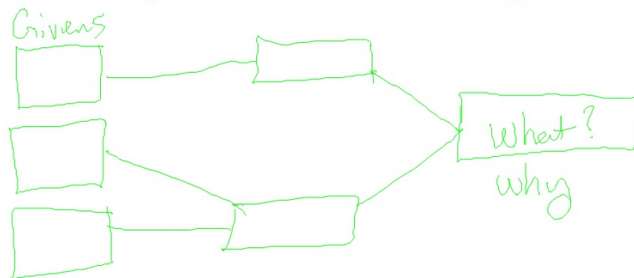


Square

Rhom



IWBAT practice writing flowchart and paragraph proofs.

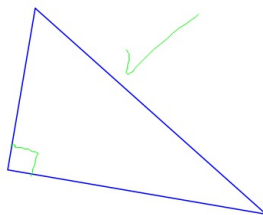
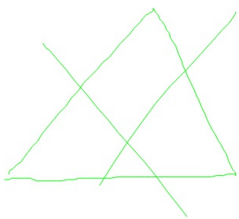


Given  $m$  and  $m$  Since  $m$   
and  $m$  therefore what.


IWBAT understand the Pythagorean Theorem more deeply.

$$a^2 + b^2 = c^2$$

Right Triangle ONLY!!



IWBAT discover the converse of the Pythagorean Theorem

If  $a^2 + b^2 = c^2$  then 

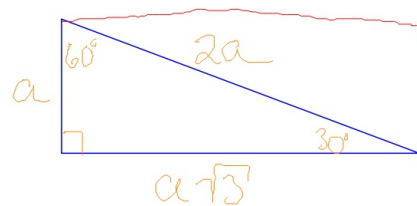
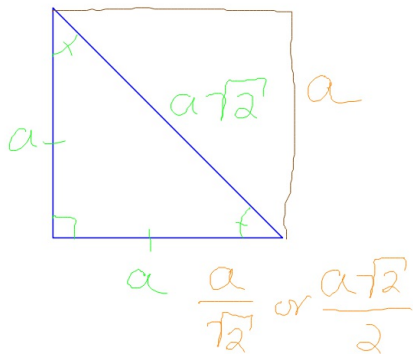
IWBAT simplify and multiply square roots and radical expressions.

$$a\sqrt{b} \cdot c\sqrt{d} = ac\sqrt{bd}$$

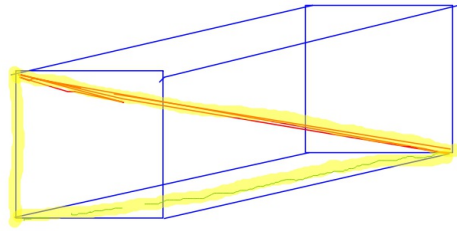
$$a\sqrt{b} \cdot c\sqrt{b} = ac\sqrt{b^2} = abc$$

$$a\sqrt{bd} \cdot c\sqrt{b} = ac\sqrt{\overset{\textcircled{bb}}{bd}} = abc\sqrt{d}$$

IWBAT discover the relationships among the lengths of the sides of a 45-45-90 triangle and a 30-60-90 triangle, and practice simplifying square roots.



IWBAT apply the Pythagorean Theorem and its converse to story problems.



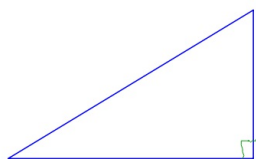
IWBAT discover the Pythagorean relationship on a coordinate plane, derive the equation of a circle from the distance formula, and use the distance formula to solve problems.

$$d = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$$

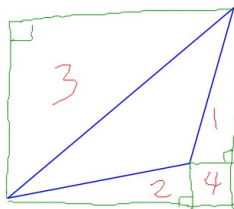
Circle  $r = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$

$$r^2 = (x_1 - x_2)^2 + (y_1 - y_2)^2$$

IWBAT calculate the perimeter and area of polygons on the coordinate plane by using the distance formula.

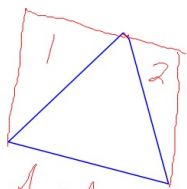


$$A = \frac{bh}{2}$$



$$A_1 + A_2 + A_3 + A_4 = A_g$$

$$A_R - A_g$$



$$A_1 + A_2 = A_{red}$$

$$A_R - A_{red}$$